

**Title:** Work Instruction for Baking Parts, {Abridged}

**Document No.:** OX3.5WI-079 Rev. 7

### Purpose:

To identify the steps associated with baking parts in accordance with IPC/JEDEC J-STD-033C, dated February 2012, "Handling, Packing, Shipping and Use of Moisture/Reflow Sensitive Surface Mount Devices."

### Definitions:

**Moisture Sensitivity Level (MSL):** MSL is a measure of device sensitivity to moisture. The higher the MSL#, the greater is the sensitivity. There are eight levels: 1, 2, 2a, 3, 4, 5, 5a, and 6. This identification enables users to store and handle the SMDs to avoid subsequent thermal/mechanical damage during reflow attachment and/or repair operations.

### Procedure:

- 1) Determine the body thickness and moisture sensitivity level. If moisture sensitivity level (MSL) is unavailable, bake at 125°C for 48 hours. If the MSL level is listed as 1 then the parts are not moisture-sensitive and no baking is required.
- 2) Consult Table 4-2 of JEDEC Standard IPC/JEDEC J-STD-033C entitled "Default Baking Times Used Prior to Dry-Pack."
- 3) Devices that were Exposed to Conditions ≤60% RH (Supplier Bake: "MET" = 24 h). Using the table below, look-up the bake time:

**Table 4-2 of JEDEC Standard IPC/JEDEC J-STD-033C entitled "Default Baking Times Used Prior to Dry-Pack"**

Package Body Thickness	MSL Level	Bake Time @ 125°C	Bake Time @ 150°C
≤1.4 mm	2	7 hours	3 hours
	2a	8 hours	4 hours
	3	16 hours	8 hours
	4	21 hours	10 hours
	5	24 hours	12 hours
	5a	28 hours	14 hours
>1.4 mm ≤2.0 mm	2	18 hours	9 hours
	2a	23 hours	11 hours
	3	43 hours	21 hours
	4	48 hours	24 hours
	5	48 hours	24 hours
>2.0 mm ≤4.5 mm	5a	48 hours	24 hours
	2	48 hours	24 hours
	2a	48 hours	24 hours
	3	48 hours	24 hours
	4	48 hours	24 hours
	5	48 hours	24 hours
	5a	48 hours	24 hours